

Sustainability Management in Italian Local Governments: What Is the Relationship Between Strategy and Financial Effort?*

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Is there a relationship between sustainability strategies and the financial efforts for their realization? This is a particularly complex question considering that sustainability has generated an intense academic and political debate. In order to contribute to the debate, the authors investigate the existence of the relationship between the strategies of local authorities in terms of sustainability and their translation into financial commitments. To this end, firstly, the paper shows the results of research that explores the sustainability strategies of a sample of the 20 Italian regional capital cities, through the content analysis of their Performance Plans. Secondly, the authors present their elaboration of financial data related to the main dimensions of sustainability (environment and territory management, welfare area, and economic development). Finally, they discuss the relationship between the two aspects surveyed (strategies and expenditures committed to sustainability) highlighting critical perspectives also for future research. Briefly, the conclusions underline: a) great autonomy in formulating strategies, highlighted by the different programming documents analyzed; b) the main terms related to sustainability are rarely used; c) particular importance, from a financial point of view, was given to the environmental and welfare sustainability dimensions both in relation to the total current expenditure committed, and in terms of financial implementation. The expenditure impact for economic development is much lower, while the average level of financial implementation of the same is higher; and d) a discrepancy between the limited strategic consideration of the sustainability dimensions and the considerable amount of financial commitments related to sustainability.

Keywords: sustainability management, local government, accounting

Introduction

Terms like “sustainability” and “sustainable development” are not easy to define. There are many papers in which different definitions have been proposed (Pezzey, 1992; Murcott, 1997). In fact, as stated by Homann

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(1996), there is no exhaustive definition of sustainability, and trying to find one is a mistake in itself. They are very broad concepts, which have become the subject of a heated theoretical and political debate and the object of studies and research.

In the Brundtland Report of the United Nations World Commission on Environment and Development (WCED, 1987), sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Moreover, sustainable development “is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs”.

Sustainability becomes, therefore, a precondition for the conservation of sustainable development—that promotes social equity—both inside and outside of each local community—and intergenerational equity.

Considering these spatial and temporal aspects, in order to ensure sustainable development, it is necessary to adopt a long-term plan that also takes into account the impact that it will have on future generations and, above all, that is the result of an integrated approach adopted to solve any problems that had previously been treated independently.

The concept of sustainable development was made official at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992. During this event, more than 170 governments signed a large document—called Agenda 21—containing intentions and programmed objectives related to the environment, economy, and society.

As part of the definition of Agenda 21, it was agreed that environmental goals should be combined with social, economic, and institutional ones, thus giving rise to the three dimensions (pillars) in which the concept of sustainability is articulated:

- environmental, meaning the ability to preserve the quality and reproducibility of natural resources, while conserving biodiversity and ensuring the integrity of ecosystems;
- economic, as the ability to produce long term income and durable work in conditions of eco-efficiency, that is, with a rational use of available resources and an efficient exploitation of non-renewable resources;
- social, understood as the ability to provide access to all the essential services (i.e. safety, health, and education) and the conditions of well-being (entertainment, serenity, and sociality) that should be equally shared between current and future generations.

The fourth dimension can be added to the above: the institutional dimension. This is the capacity to ensure stability, democracy, participation, information, education, and justice in the community. This definition shows that institutional sustainability can be considered as a part of the other three dimensions and therefore it is contained in them and comes from them and hence the choice to dwell on the three traditional areas of sustainability.

These dimensions are closely interrelated through multiple connections and imply radical changes in individual behavior and in the choices of policy makers operating at different levels of government. Regarding to this last aspect, which is the most important for this paper, Agenda 21 assigns a central role and specific powers to local governments (Local Agenda 21). Because so many of the problems and solutions addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities are a determining factor in fulfilling its objectives.

Local authorities construct, operate, and maintain economic, social, and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing

national and subnational environmental policies.

Local authorities, as the level of governance closest to the people, play a vital role in educating, mobilizing, and responding to the public to promote sustainable development.

Each local authority should enter into a dialogue with its citizens, local organizations, and private enterprises and adopt “a local Agenda 21”. Through consultation and consensus-building, local authorities could learn from citizens and from local, civic, community, business, and industrial organizations and acquire the information needed for formulating the best strategies. The process of consultation could increase household awareness of sustainable development issues.

Therefore, the authors cannot talk about sustainability and try to give a systematic theoretical and practical innovated development mode if it does not pay attention to the role played by a key actor of the process in question: public administration.

Public institutions, in fact, are particularly involved not only at the central level—where there are defined and approved plans and national and international programs on sustainability (Carter, Clegg, & Wahlin, 2011; J. Andrew, Kaidonis, & B. Andrew, 2010; Rahaman, Lawrence, & Roper, 2004)—but, especially at local level, where, by virtue of administrative decentralization and the autonomy principle (Borgonovi, 1996), municipalities, sometimes even of small or very small dimensions, govern the territory with their own rules and regulations.

The role of local government is essential: it is the institutional reference closest to the citizens and to economic and social organizations; it has the task of promoting a culture of sustainable development:

- (a) developing a comprehensive strategy that should be articulate on different levels;
- (b) leading, by its example, the behavior of the community.

Local public companies, on the one hand, must make available and share their experience, and on the other hand, must take an active and collaborative role in spreading the culture of sustainability and the implementation thereof.

The following considerations result from the need to reflect on an important aspect highlighted in literature, that is to consider sustainability in the decision-making process in order to encourage the management of companies to have a sustainable behavior. If this consideration refers to the entire corporate world, this implies, even at a local government level, the presence of so-called sustainable management is essential.

It can be argued that it is essential within the local entities that people in management have the necessary skills and are able to integrate into their guidelines and policy documents, the principles of sustainable development that have inspired the acts signed during international summits.

In this perspective, this paper empirically examines whether, within the strategic planning documents of the Italian regional capital cities (n. 20), the objectives of sustainability have a place or not. Besides this, it investigates the level of financial commitment of local governments through the analysis of data in the financial report of 2011-2013. Finally, some considerations are made regarding the correlation between programming of sustainability and level of financial commitment of the same.

For these reasons, the analysis of the programmatic aspects is essential.

In order that, political leaders and management in local government begin to act responsibly in terms of sustainability, urging them to question themselves about their institutional function, how to carry out their mandate and their ability to make decisions for the community that also look towards the future. That is, they must make choices which take into consideration the value and importance of sustainability, also from a

strategic point of view (Tolba, 1997; Economic and Social Commission for Asia and the Pacific, 2004), and which are attributed to sustainability.

Choices, then, that should no longer sacrifice, as in the past, are a medium to long term vision in favor of those aimed at achieving immediate political results.

Similarly, the focus on sustainability can be useful to rationalize the use of financial resources: plan sustainably to spend sustainably. For this reason, an analysis on the costs related to sustainability in local government was carried out.

The development of a concrete relationship between planning and spending for sustainable development requires a profound cultural and organizational change in the way public administration is managed through an innovative, shared, planned, and sustainable model (Bruff & Wood, 2000).

The desire is to have local governments that are more open to dialogue, more transparent, and able to integrate the criteria of efficiency, effectiveness, and economy—consolidated in the business management doctrine—with that of sustainability (Hood, 1995; Behn, 1998; Parker & Gould, 1999; Barzelay, 2001; Pollitt & Bouckaert, 2002).

In this sense, Ball (2002) warned about the possibility that management of local authorities might make the mistake of focusing attention on short term actions—designed to achieve an adequate level of efficiency to the detriment of long term goals, such as those related to sustainability (Ball, 2002).

The remainder of the paper is organized as follows. The next section defines the conceptual framework based on the literature on sustainability and presents the research questions. Section 3 outlines the adopted research methods. Sections 4 and 5 present the results of the analysis. Finally, section 6 provides the conclusions and raises a number of critical issues for future research.

Conceptual Framework

Since 1987, the academic and institutional worlds have raised the level of awareness on issues relating to sustainability, which, as evidenced by Bebbington and Gray (2001), was awarded a special place in the political agenda of many countries. Policy makers, as reflected in the work of Rogers, Jalal, and Boyd (2008), were invited to combine, in the preparation of their agenda, the protection of the natural environment with the economic and social needs of the community. However, according to Strange and Bayley (2008), to achieve a concrete result in terms of sustainability, it is fundamental that the sustainability criteria in policy making are adopted at the different governmental levels, from international to local. Otherwise, achieving this goal remains a mere utopia.

The lack in the literature of specific research related to sustainable guidelines of public institutions was noted in the works of Ball (2002; 2004) and Ball and Grubnic (2007), which, however, highlighted the importance that studies on sustainability principles and practices can have in this area. Moreover, Gray (2006) showed the disparity in the number of jobs promoted in the public sector versus private (Andrew & Cortese, 2013; Spence, Chabrak, & Pucci, 2013; Cho & Patten, 2013; Michelon, Pilonato, & Ricceri, 2015).

All this seems to contrast the consideration given in the Introduction, but relate to the contribution of the public sector in sustainable development by virtue of its nature and, thus, the execution of its functions carries out through a sustainable approach (Brugmann, 1996; Kelly, Sirr, & Ratcliffe, 2004).

Public sector organizations, by definition, should generate value for society through their political choices. Therefore, their great responsibility is evident not only in adopting sustainable choices, but also in terms of promotion and support of policies that encourage sustainability. In this regard, as shown in the work of Ball and

Grubnic (2007) mentioned above, an example of a tool used in the public sector to support sustainability is represented by the practice of Green Public Procurement (GPP), through which public administration takes into account environmental aspects in the purchasing process.

Research on sustainability strategy planning is still limited. Williams (2002) proposed the integration of sustainable development in the strategic planning process, as well as in the other processes that follow it.

With regard to Italian literature, the work of Mazzara, Sangiorgi, and Siboni (2010a; 2010b) analyzed the practices used in local authorities considering sustainable development in a strategic point of view and presented a first analysis regarding the consideration of sustainable development in the strategic plans of local authorities.

In general, it could be argued that the implementation of a planned activity should be supported by the elaboration of a strategy that specifies:

- the objectives and the explicit purposes of policies;
- the responsibility of all parties involved;
- the human and financial resources to be used;
- the appropriate control mechanisms to monitor the results achieved and any deviations from the planned objectives.

Based on the conceptual framework and debate discussed above, the following research question can be formulated:

RQ1: Do the Italian local governments include sustainability strategies in their planning documents?

In comparison to the strategic aspect, the reporting aspect is more widely treated by authors, both Italian and international (Broadbent & Laughlin, 2003; Dumay, Guthrie, & Farneti, 2010; Williams, Wilmshurst, & Clift, 2011; Farneti, 2012). In fact, both national and local public administrations, having to follow different recommendations and to submit to numerous controls, appear to be more facilitated in and focused on reporting action undertaken and, consequently, on the performance achieved in terms of sustainability. But there are several authors who show the existence of other factors that have contributed to the proliferation of writings on sustainability reporting in local authorities. For example, in the study by Kaur and Lodhia (2014), stakeholder's engagement is considered as an essential motivation for the development of sustainability reporting. The same approach is evident in the work by Farneti and Guthrie (2009) in which, with reference to the Australian public sector, it was found that sustainability reporting is justified by the need to inform the parties' interest in organization activities.

Moreover, according to Ball and Bebbington (2008), for public organizations, sustainability transparency is an essential variable due to their nature. For the same authors, in general terms, the performance of public organizations is often related to the achievement of their objectives that are socially sustainable. Through sustainability, reporting public organizations have, at their disposal, a tool to monitor their strategies and guide future actions.

Hence, the need for greater attention and diffusion of the control that closes the programming cycle and allows public organizations to have data related to management choices and their evolution with particular reference to:

- incurred expenditures;
- achieved results;
- deviations from planned objectives (identifying causes of these deviations).

The specific attention paid to financial dynamics—especially on sustainability expenditures—requires a reference to the role, and the potential and the critical issues arising from the implementation of an environmental and social accounting system (Sargiacomo, 2014; Baker, 2014; Robert & Wallace, 2015).

Given the debate over the reporting on sustainability, the following research question can be formulated:

RQ2: How are sustainability strategies of local governments translated into their financial reports?

These assessments are complex, but it is important to check the decision-making process, because they imply the ex post re-examination of the targets identified in the programming documents, defining their continuation, elimination, or reformulation according to the criteria of efficiency, effectiveness, and sustainability.

Research Method

To answer the above-mentioned research questions, the authors did an exploratory study of a sample represented by 20 Italian regional capital cities, selected in order to:

- identify the most populous local governments;
- ensure a homogenous geographic distribution of the sample throughout the entire Italian territory.

Table 1

Sample

| n. | Cities | Population |
|----|------------|------------|
| 1 | Aosta | 34,901 |
| 2 | Campobasso | 49,392 |
| 3 | Potenza | 67,403 |
| 4 | L'Aquila | 70,967 |
| 5 | Catanzaro | 91,028 |
| 6 | Ancona | 101,742 |
| 7 | Trento | 117,285 |
| 8 | Cagliari | 154,019 |
| 9 | Perugia | 166,030 |
| 10 | Trieste | 204,849 |
| 11 | Venezia | 264,534 |
| 12 | Bari | 322,751 |
| 13 | Firenze | 377,207 |
| 14 | Bologna | 384,202 |
| 15 | Genova | 596,958 |
| 16 | Palermo | 678,492 |
| 17 | Torino | 902,137 |
| 18 | Napoli | 989,111 |
| 19 | Milano | 1,324,169 |
| 20 | Roma | 2,863,322 |

Regarding the first research question, the methodology of content analysis has been applied to the documents designated to represent the strategies of the local governments of the sample (three-year Performance Plan), in order to detect the degree of attention paid to sustainability strategies.

As part of the methodology of content analysis, according to Krippendorff (1980), the frequency analysis technique has been used.

Therefore, for each municipality of the sample, in the Transparency Area of the Institutional website, the document relating to the years 2011, 2012, and 2013 has been downloaded accessing the “Performance Plan” section.

With reference to the second research question of this study, the document analysis procedure has been applied to the reporting documents that include the expenses related to sustainability.

In particular, the financial report of the investigated local governments has been considered and, specifically, the functions related to the environment, territory management, welfare, and economic development, because these represent the three dimensions of sustainability considered in this paper (environmental, social, and economic). From a temporal point of view, the years investigated are 2011, 2012, and 2013.

Performance Plan and Sustainable Strategies

The first step for making a content analysis is the acquiring of the documents on which to carry out the analysis. It was verified whether local government websites host a section dedicated to performance in which the Performance Plan is found.

With regard to this first step, although public entities are obliged to have this section on their websites, some administrations have not complied to this formality. In fact, any reports for the municipality of Potenza have been found and, consequently, the sample was reduced to 19 units.

This situation highlights the first critical aspect related to the existence of an information gap still to be filled in relation to some content that, instead, is necessary for the complete realization of the principle of transparency according to the criteria of easy accessibility, completeness, and ease of consultation imposed by law (Art. 1, paragraph 15 of Law 190/2012).

Given RQ1, for each institution, the Performance Plan has been downloaded with the objective of verifying whether public administrators have included sustainability and the sustainable development among the main objectives to be achieved in the planning policy document of the city.

In the section of the municipal website dedicated to performance, the documents of interest for this survey are not similar to each other. This outcome is due to the autonomy that the law recognized to local authorities regarding the definition of the structure and content of the three-year Performance Plan report. In addition, the most recent legislation (Decree Law, NO. 174 of 2012) gives local governments the choice to merge the Performance Plan with the Management Executive Plan. This alternative creates further confusion, especially when considering that the two documents have different purposes.

The analysis shows that in the performance area, various documents, related to the following categories, are inserted:

- (1) Performance Plan (two entities);
- (2) Goal Plan (five entities);
- (3) Management Executive Plan (six entities);
- (4) integrated document including the Performance Plan and the Management Executive Plan (three entities);
- (5) joint document including the Management Executive Plan and the Goal Plan (one entity);
- (6) document that correlates the Performance Plan to the Forecasting and Planning Report (two entities).

This initial evidence highlights the need to reflect on critical issues, both formal (the number of documents used to illustrate the Institution’s strategies) and substantial (heterogeneous data and information contained in the documents).

The analysis highlights an heterogeneity in relation to another element: the period to which the documents refer which is fixed by law in three years.

It should be noted, in this regard, that the three-year Performance Plan should include both the strategic and operational objectives, specifying the objectives assigned to each of the three years.

The analysis revealed that:

- two entities indicate in the title a three-year period, while the contents of the report refer to a single year (2013);
- 14 entities explicitly indicate a single year reference period (2013);
- three entities indicate instead a three-year period subdivided into a single year, as specified by law.

This consequently, invalidates the pluriannual nature of the programming that is particularly important in terms of sustainable development, whose essence is taking care of the intergenerational impact of the activity carried out and realization requires a period of medium/long term.

It is clear, therefore, that the choice is based on the least complicated and faster achieved goals, without considering the long-term sustainability of the same.

As provided by law (Art. 5 of Legislative Decree NO. 150/2009), the goals indicated in the Performance Plan must be scheduled every three years, must be defined at the beginning of the first year of the three-year period, and are set out by the political and administrative bodies, after consulting the managers of the public organizational units. The same goals, however, must be defined considering the financial resources resulting from the approved budget.

A further reflection takes into consideration the date of approval of the strategies' programming documents. This date is often postponed to the last months of the year simultaneously with the approval of the annual budget.

It is obvious that this issue raises concerns about—especially when the documents only refer to the 2013—the real programmatic capacity of the Performance Plans that is approved in a later date than the year to which the plan refers.

The implications arising from this fact cannot but have a negative impact on the overall activities of the entity which is essentially driven by the contingencies of a short or very short time.

For the content analysis, the more traditional technique of the analysis of frequencies was used, namely, counting how many times the terms “sustainability” and “sustainable development” occur in the documents.

The analysis of the text showed that:

- (1) only six local governments have adopted the term “sustainable development” in their documents;
- (2) the expression “sustainable development” is always used in the introduction of the documents as a guiding principle of action of the administration, but it is not indicated as a specific goal;
- (3) the adjective “sustainable” is associated with: a) construction (public housing) (NO. 4) characterizing, in fact, social policies in this area; b) tourism and economic activities envisaged in this area, considered as a driving force for the economy of certain cities (NO. 3); and c) mobility (NO. 7), in order to make choices to reduce traffic and facilitate the movement of citizens without resorting to cars;
- (4) considering the dimensions of “sustainable development”, particular emphasis is given to environmental sustainability in 10 reports, where actions are explicit about: a) the restoration and preservation of the environment indicating, mainly, reclamation activities, the incentive of recycling and proper waste management, and those aimed at the reduction of pollutants; and b) the energy qualification of municipal buildings and structures used for public lighting.

These findings lead to some general reflections.

The first is that the concept of sustainable development has not yet been absorbed in the strategic objectives of the local authorities.

As aforesaid, the term appears with a very low frequency and, in any case, where it is found, it is not considered as purposes of the actual programming.

The second consideration is the increased attention given to the environmental dimension rather than the others (social and economic dimensions). This circumstance is probably the most immediate consequence of the different legal obligations that bind the municipalities to implement specific practices, also in regard to the European commitment taken by the Italian government.

Finally, the analyzed planning documents, in their diversity, have been the main limitation of this analysis.

The absence of a single format of the report, as well as the autonomy left to the entities in the selection of the programming document to be drawn up, does not allow a precise comparison between entities, nor easily detect the number of the environmental/social/economic objectives out of the total number of targets formalized in the investigated documents.

This deeply undermines the transparency of the documents in which it is not clear whether or how individual institutions have actually formalized their strategies in terms of “sustainable development”.

Financial Analysis

The analysis considers the financial commitments contained in the three financial report sections related to the main dimensions of sustainability (environment and territory management, welfare, and economic development). Please note that the sample is made up of 19 organizations because of the unavailability of financial data of the city of Aosta.

For each of the three sections, the impact of expenditure commitments on the total current expenditure amount is assessed, in order to highlight the financial “weight” of each sustainability dimension and, therefore, to speculate the response to RQ2 (the financial impact of the sustainability strategies). In Tables 2, 3, and 4, the increasing order of data is driven by the impact value of the most recent year available (2013).

The impact of expenditure commitments for environment and territory management on the total current expenditure amount is shown below.

The data in Table 2 show:

- very high values of expenditure commitments in the environmental field (e.g., in 2013, from a minimum of 16 million euro for Trento to 912 million euro for Rome);
- a marked variability of the impact on total current expenditure that, for example, in 2013 shows a gap of over 20 percentage points between the city with the minimum incidence (Trento, 10%) and the one with the highest impact (Catanzaro, 34%);
- a consistent level of the impact on total current expenditure (in more than half of the cities of the sample it exceeds 20%), indicating a significant financial commitment of these organizations to issues relating to environment and territory management;
- a variability of the impact for each city in the three years considered, that, in many cases, is relatively limited (e.g., Trento, Milano, and Bari), but in others is more consistent (Firenze, L’Aquila, and Venezia).

Table 2

Impact of Expenditure Commitments for Environment and Territory Management

| Environment and territory management (financial commitments) | | | | | | Expenditure commitments for environment and territory management/total current expenditure | | |
|---|--------------------|-----------|-------------|---------------|-------------|---|------|-----|
| City | Population 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 | |
| 1 | TRENTO | 117,285 | 17,664,218 | 18,765,462 | 16,897,648 | 10% | 11% | 10% |
| 2 | L'AQUILA | 70,967 | 116,986,765 | 67,066,456 | 26,806,266 | 46% | 38% | 12% |
| 3 | TRIESTE | 204,849 | 39,797,253 | 40,003,874 | 44,211,518 | 14% | 14% | 14% |
| 4 | MILANO | 1,324,169 | 380,125,311 | 429,672,482 | 427,938,987 | 16% | 17% | 16% |
| 5 | BOLOGNA | 384,202 | 85,350,318 | 83,223,743 | 88,443,688 | 19% | 18% | 19% |
| 6 | ROMA | 2,863,322 | 928,610,892 | 1,212,778,603 | 912,169,854 | 21% | 25% | 19% |
| 7 | TORINO | 902,137 | 225,296,491 | 224,988,827 | 223,584,073 | 19% | 19% | 19% |
| 8 | FIRENZE | 377,207 | 32,210,299 | 124,753,856 | 120,650,385 | 7% | 22% | 21% |
| 9 | VENEZIA | 264,534 | 33,406,966 | 33,157,840 | 128,331,911 | 7% | 7% | 22% |
| 10 | ANCONA | 101,742 | 23,948,408 | 24,964,312 | 24,401,236 | 22% | 22% | 22% |
| 11 | POTENZA | 67,403 | 17,307,012 | 19,222,137 | 19,083,593 | 21% | 24% | 23% |
| 12 | GENOVA | 596,958 | 150,310,673 | 164,513,342 | 164,535,720 | 21% | 22% | 24% |
| 13 | BARI | 322,751 | 85,542,811 | 82,305,471 | 83,468,249 | 27% | 26% | 25% |
| 14 | PALERMO | 678,492 | 174,782,867 | 174,093,823 | 186,553,371 | 22% | 25% | 26% |
| 15 | NAPOLI | 989,111 | 231,232,330 | 236,817,140 | 324,281,085 | 19% | 20% | 26% |
| 16 | CAGLIARI | 154,019 | 51,717,683 | 53,064,952 | 54,330,268 | 26% | 29% | 27% |
| 17 | PERUGIA | 166,030 | 43,222,057 | 45,392,332 | 52,079,500 | 25% | 27% | 29% |
| 18 | CAMPOBASSO | 49,392 | 14,701,730 | 14,986,061 | 14,733,410 | 32% | 32% | 32% |
| 19 | CATANZARO | 91,028 | 26,547,142 | 26,751,605 | 25,238,867 | 33% | 37% | 34% |

Table 3 shows the impact of expenditure commitments in welfare on the total current expenditure amount, focusing, therefore, on the financial weight of the social dimension of sustainability.

Table 3

Impact of Expenditure Commitments in Welfare

| Welfare (financial commitments) | | | | | | Expenditure commitments in welfare/total current expenditure | | |
|---------------------------------|------------|-----------------|-------------|-------------|-------------|--|------|------|
| | City | Population 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 |
| 1 | POTENZA | 67,403 | 6,082,973 | 3,822,909 | 5,254,620 | 7% | 5% | 6% |
| 2 | CATANZARO | 91,028 | 8,813,973 | 4,099,949 | 5,018,037 | 11% | 6% | 7% |
| 3 | NAPOLI | 989,111 | 95,578,160 | 96,899,622 | 96,899,290 | 8% | 8% | 8% |
| 4 | PALERMO | 678,492 | 66,653,378 | 62,180,336 | 62,388,413 | 9% | 9% | 9% |
| 5 | CAMPOBASSO | 49,392 | 4,973,871 | 4,185,924 | 4,526,945 | 11% | 9% | 10% |
| 6 | GENOVA | 596,958 | 81,027,865 | 79,769,446 | 78,894,687 | 11% | 11% | 11% |
| 7 | PERUGIA | 166,030 | 22,136,095 | 21,251,479 | 21,479,344 | 13% | 13% | 12% |
| 8 | ROMA | 2,863,322 | 690,664,330 | 693,703,018 | 660,020,124 | 15% | 14% | 14% |
| 9 | VENEZIA | 264,534 | 89,212,118 | 84,114,306 | 84,569,141 | 18% | 17% | 14% |

Table 3 continued

| | | Welfare (financial commitments) | | | | Expenditure commitments in welfare/total current expenditure | | |
|----|----------|---------------------------------|-------------|-------------|-------------|--|------|------|
| | City | Population 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 |
| 10 | MILANO | 1,324,169 | 397,789,451 | 388,324,555 | 391,160,416 | 17% | 16% | 15% |
| 11 | BARI | 322,751 | 51,202,989 | 49,336,050 | 51,687,917 | 16% | 15% | 16% |
| 12 | ANCONA | 101,742 | 17,868,916 | 17,324,204 | 17,083,678 | 16% | 15% | 16% |
| 13 | FIRENZE | 377,207 | 99,666,663 | 97,572,899 | 98,446,280 | 21% | 17% | 17% |
| 14 | TORINO | 902,137 | 267,077,516 | 249,695,638 | 243,962,944 | 22% | 21% | 21% |
| 15 | BOLOGNA | 384,202 | 103,218,709 | 100,318,296 | 101,594,630 | 23% | 22% | 22% |
| 16 | CAGLIARI | 154,019 | 44,390,843 | 40,225,563 | 45,743,084 | 22% | 22% | 23% |
| 17 | TRENTO | 117,285 | 56,918,920 | 52,712,896 | 51,026,802 | 31% | 30% | 29% |
| 18 | TRIESTE | 204,849 | 89,983,410 | 92,350,324 | 92,562,589 | 32% | 32% | 30% |
| 19 | L'AQUILA | 70,967 | 86,060,301 | 59,782,385 | 122,727,650 | 34% | 34% | 57% |

The analysis of data denotes that:

- the absolute value of current spending commitments for welfare ranges from about five million euro (Catanzaro) to over 660 million euro (Rome);
- the impact of welfare expenditure on total current expenditure (in 2013) oscillates from a minimum of 6% (Potenza) to a maximum of 57% (L'Aquila). Among the lower impact values, there is the city of Potenza (as in the analysis of the absolute values, together with Catanzaro and Campobasso). On the contrary, the highest impact occurs in the city of L'Aquila while, in absolute terms, the municipality with the highest value of financial commitment is Rome.

Finally, Table 4 highlights the impact of expenditure commitments in economic development on the total current expenditure amount, investigating the third dimension of sustainability.

Table 4

Impact of Expenditure Commitments in Economic Development

| | | Economic development (financial commitments) | | | | Expenditure commitments in economic development/total current expenditures | | |
|----|----------|--|------------|------------|------------|--|------|------|
| | City | Population 2013 | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 |
| 1 | L'AQUILA | 70,967 | 51,181 | 46,440 | 63,408 | 0% | 0% | 0% |
| 2 | NAPOLI | 989,111 | 2,855,164 | 2,296,510 | 2,276,098 | 0% | 0% | 0% |
| 3 | POTENZA | 67,403 | 293,123 | 266,903 | 223,474 | 0% | 0% | 0% |
| 4 | BOLOGNA | 384,202 | 1,607,256 | 1,253,034 | 2,340,269 | 0% | 0% | 0% |
| 5 | PERUGIA | 166,030 | 1,421,735 | 936,369 | 973,317 | 1% | 1% | 1% |
| 6 | MILANO | 1,324,169 | 12,417,885 | 21,759,559 | 14,831,679 | 1% | 1% | 1% |
| 7 | PALERMO | 678,492 | 4,238,518 | 4,415,546 | 4,103,670 | 1% | 1% | 1% |
| 8 | ROMA | 2,863,322 | 35,421,028 | 32,810,788 | 30,209,922 | 1% | 1% | 1% |
| 9 | VENEZIA | 264,534 | 4,369,726 | 3,477,264 | 3,776,312 | 1% | 1% | 1% |
| 10 | BARI | 322,751 | 3,183,723 | 2,851,635 | 2,693,214 | 1% | 1% | 1% |
| 11 | TORINO | 902,137 | 11,521,241 | 11,710,148 | 11,752,373 | 1% | 1% | 1% |

Table 4 continued

| City | Population 2013 | Economic development (financial commitments) | | | Expenditure commitments in economic development/total current expenditures | | |
|---------------|--------------------|--|-----------|-----------|--|------|------|
| | | 2011 | 2012 | 2013 | 2011 | 2012 | 2013 |
| 12 TRIESTE | 204,849 | 4,085,799 | 3,688,869 | 3,247,598 | 1% | 1% | 1% |
| 13 CAMPOBASSO | 49,392 | 559,957 | 644,204 | 496,953 | 1% | 1% | 1% |
| 14 ANCONA | 101,742 | 1,369,831 | 958,026 | 1,272,998 | 1% | 1% | 1% |
| 15 FIRENZE | 377,207 | 7,404,289 | 6,702,303 | 7,519,978 | 2% | 1% | 1% |
| 16 GENOVA | 596,958 | 9,650,786 | 8,782,552 | 8,936,633 | 1% | 1% | 1% |
| 17 TRENTO | 117,285 | 1,140,097 | 1,107,410 | 2,535,526 | 1% | 1% | 1% |
| 18 CATANZARO | 91,028 | 1,460,753 | 1,372,288 | 1,331,745 | 2% | 2% | 2% |
| 19 CAGLIARI | 154,019 | 5,720,474 | 4,969,509 | 5,107,931 | 3% | 3% | 3% |

The analysis of financial values highlights that:

- the absolute values of financial commitments in the area of economic development are lower than those seen for environment and welfare;
- the impact of expenditure commitments for the economic development on the total current expenditure is at low level (within 3%);
- the impacts in question are fairly homogeneous among all the cities of the sample showing a low gap between the minimum and the maximum value.

Financial Index of Sustainability Strategy Implementation

In this paragraph, again to clarify the possible answer to RQ2, financial analysis focuses on an indicator which highlights the degree of implementation of sustainability strategies (here defined as financial index of strategy implementation). It is calculated as the ratio between payments for the period (for each of the three dimensions considered) and the related financial commitments.

Table 5 contains the implementation index related to environment and territory management.

Table 5

Implementation Index—Environment and Territory Management

| City | Environment and territory management (payments/financial commitments) | | |
|--------------|--|------|------|
| | 2011 | 2012 | 2013 |
| 1 NAPOLI | 23% | 20% | 20% |
| 2 POTENZA | 36% | 35% | 43% |
| 3 TORINO | 34% | 42% | 43% |
| 4 CATANZARO | 44% | 45% | 48% |
| 5 FIRENZE | 51% | 51% | 51% |
| 6 TRENTO | 58% | 56% | 51% |
| 7 CAMPOBASSO | 61% | 56% | 58% |
| 8 MILANO | 69% | 66% | 68% |
| 9 L'AQUILA | 87% | 79% | 71% |
| 10 PERUGIA | 85% | 65% | 73% |
| 11 ANCONA | 77% | 76% | 77% |

Table 5 continued

| | | Environment and territory management (payments/financial commitments) | | |
|----|----------|--|------|------|
| | City | 2011 | 2012 | 2013 |
| 12 | ROMA | 72% | 65% | 79% |
| 13 | PALERMO | 86% | 86% | 79% |
| 14 | CAGLIARI | 75% | 82% | 80% |
| 15 | VENEZIA | 90% | 86% | 80% |
| 16 | BARI | 81% | 84% | 82% |
| 17 | BOLOGNA | 83% | 88% | 89% |
| 18 | TRIESTE | 87% | 78% | 90% |
| 19 | GENOVA | 91% | 90% | 94% |

As evidenced in Table 5, there is a large gap between the minimum value of the financial index of environment strategy implementation (20%, Naples for 2013) and the maximum (94%, Genova for 2013).

Table 6 sets out the financial index of welfare strategy implementation.

Table 6

Implementation Index—Welfare

| | | Welfare (payments/financial commitments) | | |
|----|------------|---|------|------|
| | City | 2011 | 2012 | 2013 |
| 1 | NAPOLI | 35% | 21% | 22% |
| 2 | L'AQUILA | 86% | 69% | 34% |
| 3 | POTENZA | 30% | 38% | 49% |
| 4 | PALERMO | 54% | 47% | 49% |
| 5 | BARI | 60% | 56% | 53% |
| 6 | CAMPOBASSO | 53% | 48% | 53% |
| 7 | TORINO | 73% | 63% | 55% |
| 8 | ROMA | 59% | 58% | 58% |
| 9 | PERUGIA | 59% | 59% | 62% |
| 10 | ANCONA | 65% | 66% | 65% |
| 11 | BOLOGNA | 66% | 76% | 67% |
| 12 | CATANZARO | 56% | 69% | 70% |
| 13 | FIRENZE | 66% | 71% | 71% |
| 14 | MILANO | 68% | 69% | 71% |
| 15 | CAGLIARI | 66% | 72% | 76% |
| 16 | TRIESTE | 78% | 78% | 79% |
| 17 | GENOVA | 82% | 82% | 83% |
| 18 | TRENTO | 84% | 83% | 85% |
| 19 | VENEZIA | 78% | 87% | 87% |

The empirical evidence shows that the implementation of social strategies (from a financial point of view) assumes percentages that are rather consistent with a wide oscillation that goes from 21% for Napoli in 2012 to 87% for Venezia in the same year.

Finally, the financial index of implementation of the economic development strategy is determined (Table 7).

Table 7

Implementation Index—Economic Development

| | | Economic development (payments/financial commitments) | | |
|----|------------|--|------|------|
| | City | 2011 | 2012 | 2013 |
| 1 | TORINO | 68% | 73% | 61% |
| 2 | BOLOGNA | 77% | 100% | 61% |
| 3 | CAMPOBASSO | 54% | 41% | 62% |
| 4 | L'AQUILA | 57% | 59% | 67% |
| 5 | MILANO | 84% | 65% | 68% |
| 6 | CATANZARO | 84% | 88% | 68% |
| 7 | ANCONA | 63% | 91% | 69% |
| 8 | BARI | 69% | 75% | 72% |
| 9 | POTENZA | 76% | 97% | 72% |
| 10 | CAGLIARI | 67% | 79% | 73% |
| 11 | GENOVA | 76% | 78% | 76% |
| 12 | NAPOLI | 78% | 80% | 76% |
| 13 | FIRENZE | 72% | 79% | 80% |
| 14 | ROMA | 66% | 72% | 81% |
| 15 | TRIESTE | 81% | 82% | 82% |
| 16 | PALERMO | 92% | 82% | 88% |
| 17 | TRENTO | 69% | 67% | 91% |
| 18 | PERUGIA | 80% | 91% | 94% |
| 19 | VENEZIA | 81% | 96% | 94% |

What seems evident from the data shown above is that the value of the financial index of economic strategy implementation takes on particularly large values (i.e., greater than 61% in 2013, 41% in 2012, and 54% in 2011).

The Sustainability Dimensions in Comparison

This section analyzes the financial ratios resulting from the two preceding paragraphs in their average value for the sample considered, in order to compare synthetically and jointly, the three dimensions in which sustainability can be divided.

It seems clear that the expenditures for the environmental and welfare dimensions have an average impact on total current expenditures that is far greater than the impact of economic development expenditure. Financially, this shows a greater attention of analyzed local governments on environmental and social issues, while only a marginal commitment is dedicated to the support of economic activity. This situation is almost constant in the period considered.

Figure 1 shows that the average index of financial implementation of sustainability is quite high for the three dimensions that make up the same. Moreover, there is a greater level of implementation of the economic development aspects of sustainability for which, in the period considered, the implementation index goes from 73% in 2011 to 79% in 2012 and reaches 75% for 2013 (Figure 2). While, the implementation index for the welfare and environmental dimensions—during the three years considered—assumes values comprised between 60% and 68%.

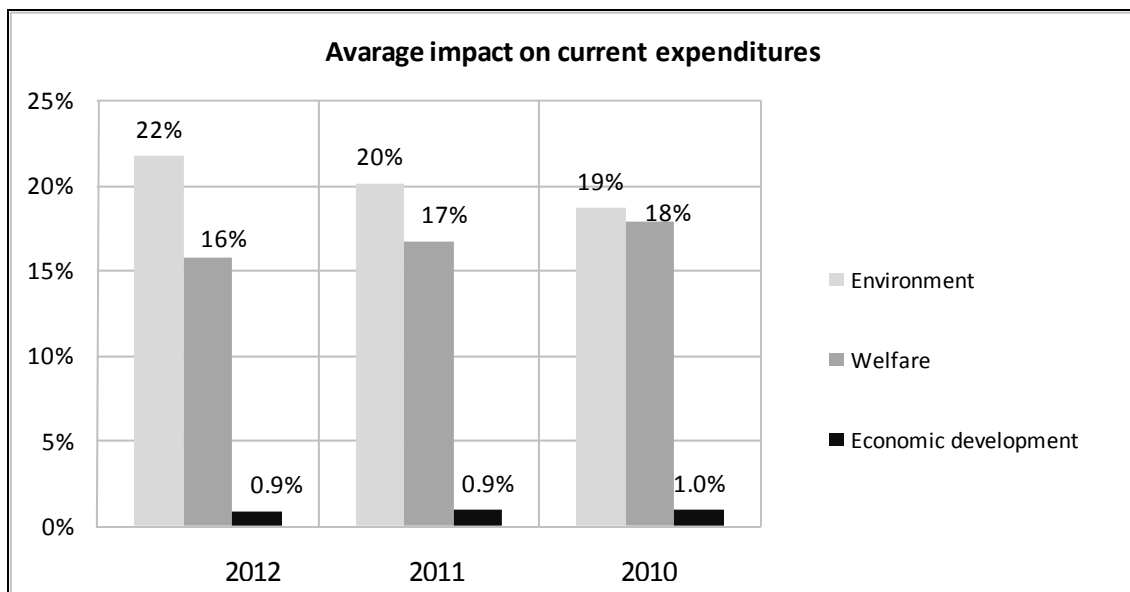


Figure 1. Avarage impact on current expenditures.

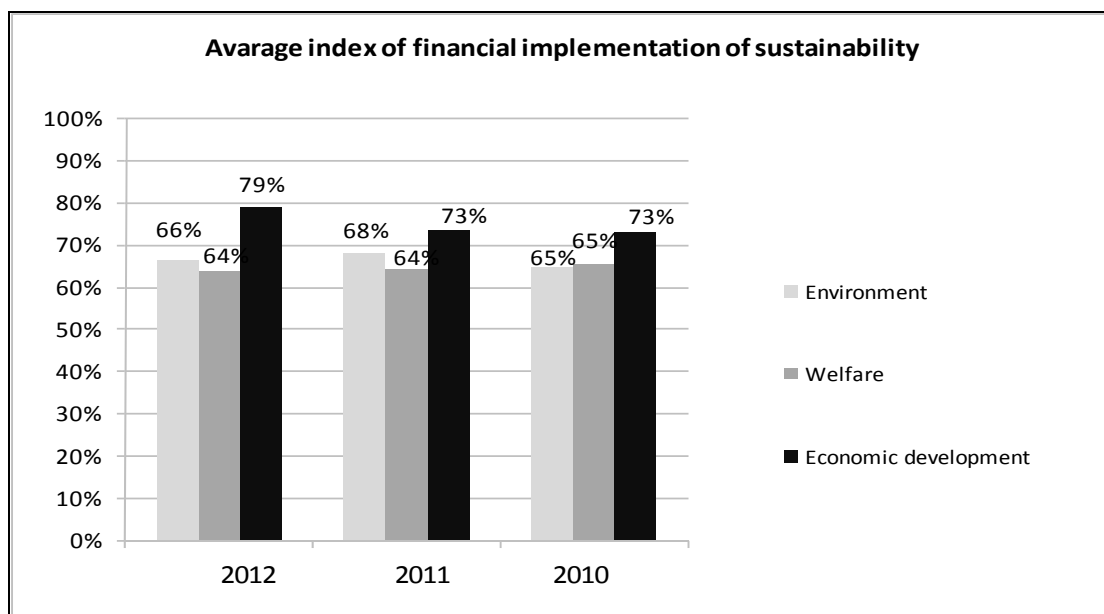


Figure 2. Avarage index of financial implementation of sustainability.

Conclusion, Discussion and Ways Forward

From the joint examination of the results of the two empirical analyses carried out previously, some observations arise. In particular, the content analysis on the strategic documents of the local governments in the sample and the examination of their accounting data, provide information for evaluating what kind of consistency is between sustainability strategies and financial commitments in sustainability dimensions.

Thus, there are:

(1) great autonomy in formulating strategies, highlighted by the different programming documents found analyzing the sample. The positive aspect of this autonomy is the possibility to select the content (and also in terms of sustainability) and the mode of representation of the strategies that is most suited to the specific

situation of the local government. The critical aspect comes from the strong bureaucratic culture that still persists in public organizations. So, if there is not an imposed model for the strategy representation—which, in turn, enforces the formalism—the definition of strategy itself is undervalued. This emerges from the analysis of the Performance Plans which, in effect, consist of other documents (Management Executive Plan, Goal Plan, etc.). Besides, these documents, considering a single year, lose the strategic approach and, in particular, heavily penalize the focus on sustainability which involves a multiannual view;

(2) little attention to sustainability in the analyzed documents. In fact, a first examination of the contents of these documents highlights that the main terms related to sustainability are rarely used;

(3) particular importance, from a financial point of view, was given to the environmental and welfare sustainability dimensions both in relation to the total current expenditure committed (on average between 18% and 22% in 2013) and in terms of financial implementation (on average between 63% and 67%). The expenditure impact for economic development is much lower, while the average level of financial implementation of the same is higher;

(4) a discrepancy between the limited strategic consideration of the sustainability dimensions and the considerable amount of financial commitments related to sustainability. This shows how large sums of public money intended for environmental, social, and economic aspects are spent without a prior strategic vision and without the necessary management knowledge of these issues, risking financial waste, and inefficiency.

In brief, the statement points to the need for a greater sustainability culture and a deeper attention to the same, through its inclusion in the strategic and operational objectives of local authorities. Therefore, a closer coherence between these objectives and the financial dynamics related to sustainability is necessary, so that the attention paid to sustainability in the planning phase does not remain purely formal and disconnected from the local government financial commitments.

In order to provide additional contributions to the scientific debate, as well as support to those in local public organizations involved in sustainability management, the optimization of the analysis needs to expand the research conducted examining the following items:

- per capital expenditure values, relating the expenditures for the sustainability dimensions to the resident population and making the comparisons between local governments more objective;
- capital expenditures related to the sustainability dimensions. In addition to the current expenditures already considered, the examination of capital expenditures can give a wider point of view to discuss public investment in sustainability;
- the contents of the programming documents already considered through an in-depth analysis of the same in order to better understand their focus towards sustainable development (e.g., by comparing the number of targets relating to the sustainability to the total number of planned objectives).

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